

A New *Muricopsis* from the Gulf of California, Mexico

by

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Abstract. A new species of *Muricopsis* collected at Isla Danzante, Gulf of California, Mexico, is described. Originally confused with *Nipponotrophon galapaganus* (Emerson & D'Attilio, 1970), the new species is compared with two closely related congeners, *Muricopsis armatus* (A. Adams, 1854) and *M. jaliscoensis* Radwin & D'Attilio, 1970.

INTRODUCTION

SKOGLUND (1983:108) figured this new species as *Nipponotrophon galapaganus* (Emerson & D'Attilio, 1970) from off Isla Danzante, Gulf of California, Mexico (25°45'N, 111°15'W). VOKES (1988:33) rejected this identification and indicated that the specimen figured by Skoglund was probably a new species of *Muricopsis*. Those identifications were based on a dead specimen lacking protoconch and operculum. In 1989 two living specimens were dredged by Skoglund, and another living specimen was dredged by Hertz and Skoglund in 1991, all at the original location. Our examination of these specimens, including the protoconch, the radula, and the operculum, confirmed that they are not *Nipponotrophon galapaganus* but, indeed, are a new species of *Muricopsis*.

Institutional abbreviations are as follows: AMNH, American Museum of Natural History, New York; LACM, Natural History Museum of Los Angeles County; SBMNH, Santa Barbara Museum of Natural History; and SDNHM, San Diego Museum of Natural History.

SYSTEMATICS

MURICIDAE Rafinesque, 1815

MURICOPSINAE Radwin & D'Attilio, 1971

Muricopsis Bucquoy & Dautzenberg, 1882

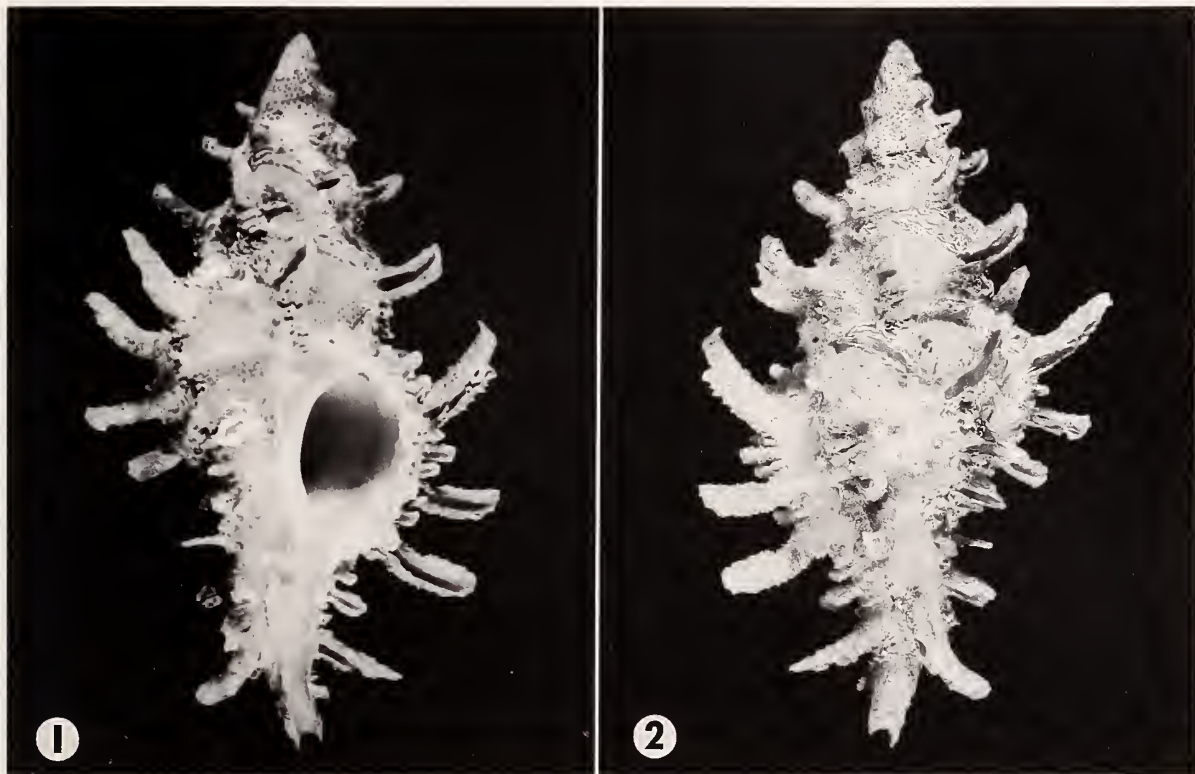
Type species: *Murex blainvillei* Payraudeau, 1826, by original designation

Muricopsis skoglundae

Myers, Hertz & D'Attilio, sp. nov.

(Figures 1-5)

Description: Holotype fusiform; spire high, acute; protoconch eroded (Figures 1, 2). Paratype with a protoconch of 1½ unsculptured, brown, rounded whorls (Figure 3). Suture weakly defined; eight teleoconch whorls; aperture ovate with shallow anal sulcus directed towards columella; outer lip erect, crenulate, reflecting external sculpture, six denticles within, all but most posterior prominent; columellar lip adherent at sulcus, detached and erect below; siphonal canal long, open, recurved. Six varices, crossing shoulder to suture. Four major spiral cords, three on body whorl, one on canal, terminating at each varix in long, recurved, open lamellose spines; minor cords with small lamellose spines between major spines. Canal with gap at juncture of body whorl. Operculum corneous, unguiculate with basal nucleus (Figure 4). Color cream to light tan with single, indistinct brown band on body whorl between second and third major cords. Spines suffused with pale rose; aperture white. Radula with central rachidian tooth and single lateral on each side; rachidian with five cusps, a strong central, two laterals, two minor intermediate cusps, and strong single endpoints (Figure 5).



Explanation of Figures 1 and 2

Figures 1, 2. *Muricopsis skoglundae* sp. nov. Holotype, SBMNH 35610. Height 45.8 mm, width 28.0 mm. Off south end of Isla Danzante, Gulf of California, Mexico, in 30–45 m. Figure 1. Apertural view. Figure 2. Dorsal view.

Etymology: It gives us great pleasure to name the species in honor of Carol Skoglund of Phoenix, Arizona, who collected the first three specimens and has been convinced since 1981 that it was a new species.

Type locality: Just south of Isla Danzante, Gulf of California, Mexico (25°45'N, 111°15'W) in 30–45 m.

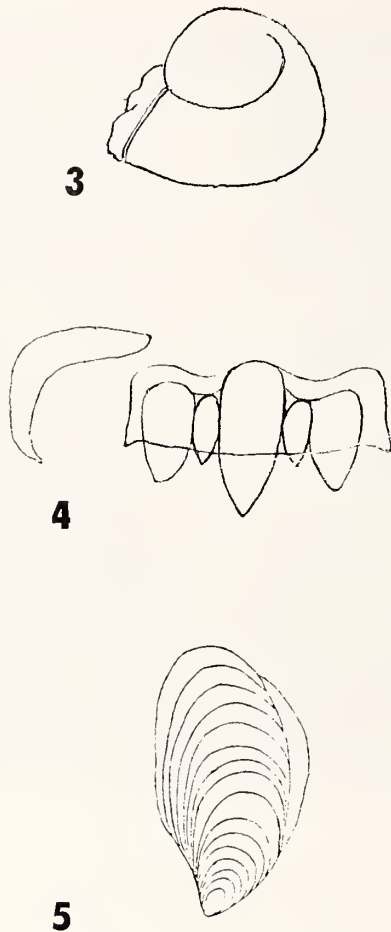
Type material: Three specimens from type locality dredged by Carol and Paul Skoglund, October 1981 and October 1989. Holotype: SBMNH 35610, 45.8 mm long, 28.0 mm wide. Paratypes: AMNH 232521, one specimen 38.3 mm long, 24.8 mm wide; one paratype retained in the Carol Skoglund collection, 26.7 mm long and 21.6 mm wide. One paratype, 48.4 mm long and 27.4 mm wide, dredged by Hertz and Skoglund, October 1991, at type locality, on upper valve of *Hyotissa hyotis* (Linnaeus, 1758), retained in Hertz collection.

Remarks: The AMNH paratype, a dead-collected specimen, is the specimen identified as *Nipponotrophon galapaganus* (Emerson & D'Attilio, 1970) in SKOGLUND (1983). The paratype in the Skoglund collection, a young live-collected specimen with protoconch and immature lip, is tan to light brown with pink spines. The Hertz collection

paratype is a mature, live-collected specimen, with a white to cream shell with a pale rose blush on the long spines.

Discussion: *Muricopsis skoglundae* is compared here with specimens of *M. armatus* in the SDNHM and Skoglund collections, the types of *M. jaliscoensis* (holotype SDNHM 51251; paratypes SDNHM 51250, 51015, 51285) and, for clarity, *Nipponotrophon galapaganus* (holotype AMNH 155906; paratypes AMNH 155907, LACM 1233) and a paratype in the Donald R. Shasky collection.

Muricopsis skoglundae has 1½ unsculptured rounded nuclear whorls. In contrast, *M. armatus*, its closest congener, has 1½ sharply angulate nuclear whorls with shoulder and median cords (MYERS & D'ATTILIO, 1986:71). Although both species have a similar fusiform shape, *M. skoglundae* has only six varices and three major cords on the body whorl, whereas *M. armatus* has seven varices and four major cords on the body whorl. The spines formed where cords and varices intersect are long, recurved and widely open in *M. skoglundae*, compared to *M. armatus*, which has straight, closed or narrowly open spines. There is a prominent knoblike denticle on the columella just above the siphonal canal in *M. armatus*, which is not found in the new species. The prominent gap in spiral sculpture



Explanation of Figures 3 to 5

Figures 3–5. *Muricopsis skoglundae* sp. nov. Figure 3. Paratype, Skoglund collection. Height 26.7 mm, width 21.6 mm. Camera lucida drawing of protoconch. Figure 4. Holotype. Camera lucida drawing of radula. Figure 5. Holotype. Camera lucida drawing of exterior of operculum showing basal nucleus.

between body whorl and canal, and the brown band on the body whorl noted for *M. skoglundae*, are not apparent in *M. armatus*, which has uninterrupted major cords on the body whorl and siphonal canal and no brown band.

Muricopsis skoglundae is quite different from *M. jaliscoensis*, known from Jalisco and Colima in the Gulf of California (RADWIN & D'ATTILIO, 1976) and Panama (D'ATTILIO, 1980:fig. 3 [fig. 1 and 4 should read *M. armatus*]). The shell of *M. skoglundae* is much larger, cream in color, possessing six varices with long spines and few spiral cords, whereas the holotype of *M. jaliscoensis* is brown, half the size of *M. skoglundae*, and has five varices with scabrous spiral cords over the entire surface and short spines. *Muricopsis skoglundae*, with a protoconch of 1½ rounded, unsculptured whorls, has six denticles on the apertural lip and none on the columella, whereas *M. jalis-*

coensis has a two-whorled tabulate protoconch and seven denticles on the apertural lip and three on the columella.

Muricopsis skoglundae has 1½ brown nuclear whorls, whereas *Nipponotrophon galapaganus*, known only from the Islas Galápagos, has 2½ white nuclear whorls. The operculum of *Muricopsis skoglundae* has a basal nucleus, whereas in *Nipponotrophon galapaganus* the nucleus is situated sublaterally (EMERSON & D'ATTILIO, 1970:fig. 4). *Muricopsis skoglundae* has scabrous sculpture and no intritacalx. In contrast, *Nipponotrophon galapaganus* has a smooth shell covered by a thick white intritacalx. The shell of *Muricopsis skoglundae* has strong varical spines which continue on the siphonal canal; *Nipponotrophon galapaganus* has no spines on the siphonal canal.

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